Vectors . . . present invention include plasmids, viruses (including phage), retroviruses, and integratable DNA fragments (i.e., fragments integratable into the host genome by **homologous** **recombination**). The vector replicates and functions independently of the host genome, or may, in some instances, integrate into the genome itself.. . .

=> log y

U.S. Patent & Trademark Office LOGOFF AT 11:17:21 ON 09 FEB 96

+++

OK

ATZ

ATZ

OK

ATH

ATH

OK

08/102,390

```
Processing
Processing
Processing
Processing
Processing
Processing
Processing
Processing
Processing
Processing
                0  EMBRYS EMBRYON?
           727241  KIDNEY
          6502812  CELL?
      S1        0  EMBRYS EMBRYON?(3W)KIDNEY(2W)CELL?
?s kidney(w)cell?

Processing
Processing
Processing
Processing
Processing
Processing
Processing
Processing
Processing
           727241  KIDNEY
          6502812  CELL?
      S2    32400  KIDNEY(W)CELL?
?s s2 and embryon?

            32400  S2
           251087  EMBRYON?
      S3     1959  S2 AND EMBRYON?
?s s3 and erythropoietin

             1959  S3
            33074  ERYTHROPOIETIN
      S4       21  S3 AND ERYTHROPOIETIN
?rd s4

...completed examining records
      S5       16  RD S4 (unique items)
?t s5/6/1-16
```

QP1.W533

```
 5/6/1     (Item 1 from file: 5)
10037532     BIOSIS Number: 95037532
  GROWTH FACTORS PRODUCED BY HUMAN EMBRYONIC KIDNEY CELLS THAT INFLUENCE
MEGAKARYOPOIESIS INCLUDE ERYTHROPOIETIN INTERLEUKIN 6 AND TRANSFORMING
GROWTH FACTOR-BETA


 5/6/2     (Item 2 from file: 5)
7727276     BIOSIS Number: 90095276
  CYTOKINE REGULATION OF THE HUMAN BURST-FORMING UNIT-MEGAKARYOCYTE
```

5/6/3 (Item 3 from file: 5)

3644617 BIOSIS Number: 73036984
REGULATION OF HUMAN MEGAKARYOCYTOPOIESIS AN IN-VITRO ANALYSIS

5/6/4 (Item 4 from file: 5)
3358693 BIOSIS Number: 71081092
IMMUNO FLUORESCENT IDENTIFICATION OF HUMAN MEGAKARYOCYTE COLONIES USING AN ANTI PLATELET GLYCO PROTEIN ANTI SERUM

5/6/5 (Item 1 from file: 155)
04465140 82008140
Regulation of human megakaryocytopoiesis. An in vito analysis.

5/6/6 (Item 2 from file: 155)
04259385 81087385
Immunofluorescent identification of human megakaryocyte colonies using an antiplatelet glycoprotein antiserum.

5/6/7 (Item 3 from file: 155)
02783589 75190589
Thrombopoietin production by human embryonic kidney cells in culture.

5/6/8 (Item 1 from file: 399)
DIALOG(R)File 399:(c) 1995 American Chemical Society. All rts. reserv.

Erythropoietin manufacture with human embryonic kidney cells

5/6/9 (Item 1 from file: 434)
13668653 Genuine Article#: QG471 Number of References: 29
Title: MAPPING OF AN NH2-TERMINAL LIGAND-BINDING SITE OF THE INSULIN-RECEPTOR BY ALANINE SCANNING MUTAGENESIS (Abstract Available)

5/6/10 (Item 2 from file: 434)
13558050 Genuine Article#: PY294 Number of References: 47
Title: HUMAN THROMBOPOIETIN - GENE STRUCTURE, CDNA SEQUENCE, EXPRESSION, AND CHROMOSOMAL LOCALIZATION (Abstract Available)

5/6/11 (Item 3 from file: 434)
13229633 Genuine Article#: NY879 Number of References: 38
Title: THROMBOPOIETIN FROM HUMAN EMBRYONIC KIDNEY-CELLS CAUSES INCREASED THROMBOCYTOPOIESIS AND DECREASED ERYTHROPOIESIS IN MICE (Abstract Available)

5/6/12 (Item 4 from file: 434)
13160138 Genuine Article#: NV625 Number of References: 42

Title: IDENTIFICATION AND CLONING OF A MEGAKARYOCYTE GROWTH AND DEVELOPMENT FACTOR THAT IS A LIGAND FOR THE CYTOKINE RECEPTOR MPL (Abstract Available)

5/6/13 (Item 5 from file: 434)
13126983 Genuine Article#: NR296 Number of References: 46
Title: INDUCTION OF HEAT-STABLE ENTEROTOXIN RECEPTOR ACTIVITY BY A HUMAN ALU REPEAT (Abstract Available)

5/6/14 (Item 6 from file: 434)
13071682 Genuine Article#: NK665 Number of References: 19
Title: ACTIVATING MUTATIONS OF THE C-KIT PROTOONCOGENE IN A HUMAN MAST-CELL LEUKEMIA-CELL LINE (Abstract Available)

5/6/15 (Item 7 from file: 434)
12671243 Genuine Article#: ME080 Number of References: 35
Title: HUMAN GROWTH-HORMONE (GH) RECEPTOR IS CHARACTERIZED AS THE 134-KILODALTON TYROSINE-PHOSPHORYLATED PROTEIN ACTIVATED BY GH TREATMENT IN IM-9 CELLS (Abstract Available)

5/6/16 (Item 8 from file: 434)
11336508 Genuine Article#: HB533 Number of References: 57
Title: TRANSFORMING GROWTH-FACTOR-BETA INHIBITS MEGAKARYOCYTE GROWTH AND ENDOMITOSIS
?t s5/7/1,8

5/7/1 (Item 1 from file: 5)
DIALOG(R)File 5:BIOSIS PREVIEWS(R)

10037532 BIOSIS Number: 95037532
GROWTH FACTORS PRODUCED BY HUMAN EMBRYONIC KIDNEY CELLS THAT INFLUENCE MEGAKARYOPOIESIS INCLUDE ERYTHROPOIETIN INTERLEUKIN 6 AND TRANSFORMING GROWTH FACTOR-BETA
WITHY R M; RAFIELD L F; BECK A K; HOPPE H; WILLIAMS N; MCPHERSON J M
MOLECULAR BIOL. DEP., GENZYME CORPORATION, FRAMINGHAM, MASS. 01701.
J CELL PHYSIOL 153 (2). 1992. 362-372. CODEN: JCLLA
Full Journal Title: Journal of Cellular Physiology
Language: ENGLISH
Partially purified protein preparations containing megakaryocyte growth factor activity were prepared from human embryonic kidney (HEK) cell conditioned medium using ammonium sulfate precipitation, Cibicron blue affinity chromatography, and wheatgerm lectin affinity chromatography. Treatment of these preparations with neutralizing antibodies directed against erythropoietin (EPO) and interleukin 6 (IL6) resulted in a dramatic reduction in their capacity to stimulate megakaryocyte maturation in vitro. The presence of EPO in these preparations was confirmed by both immunoblotting and use of a mouse spleen erythroid progenitor cell proliferation assay routinely used to quantitate EPO activity in vitro. Northern blot analysis of HEK cell-derived mRNA with IL6 DNA probes revealed the presence of an IL6 transcript [illegible]

Analysis of the HEK cell-derived preparation by ELISA confirmed the presence of immunologically reactive IL6. In addition, it was shown that purified recombinant human EPO and IL6 stimulated megakaryocyte maturation

in the in vitro assay used in this study. These data indicate that the activity in HEK cell conditioned medium that stimulates megakaryocyte maturation in vitro is predominantly due to the presence of IL6 and EPO. Immunoneutralization studies of another HEK cell-derived preparation, which was inhibitory in the megakaryocyte maturation assay, demonstrated that it contained transforming growth factor beta (TGF.beta.), a potent inhibitor of megakaryocyte maturation. Taken together, these studies indicate that HEK cell conditioned medium, which has previously been reported to contain megakaryocyte growth factor activity, is comprised of a complex mixture of growth and differentiation factors, some of which promote and others that inhibit the process of megakaryopoiesis.

```
 5/7/8     (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
(c) 1995 American Chemical Society. All rts. reserv.

  115254321    CA: 115(23)254321d    PATENT
  Erythropoietin manufacture with human embryonic kidney cells
  INVENTOR(AUTHOR): Jin, Yifong; Zhang, Heyun; Zhu, Jiazhen; et al.
  LOCATION: Peop. Rep. China,
  ASSIGNEE: Nanjing University
  PATENT: Faming Zhuanli Shenqing Gon ; CN 1044496 A  DATE: 900808
  APPLICATION: CN 89105382 (890119)
  PAGES: 5 pp.  CODEN: CNXXEV  LANGUAGE: Chinese  CLASS: C12N-005/22A;
C12P-021/00B
  SECTION:
CA216002 Fermentation and Bioindustrial Chemistry
  IDENTIFIERS: erythropoietin manuf human kidney cell
  DESCRIPTORS:
Kidney,composition...
    cells of, of human, erythropoietin manuf. with
Animal tissue culture...
    of human fetal kidney cells, for erythropoietin manuf.
  CAS REGISTRY NUMBERS:
11096-26-7P  manuf. of, with human fetal kidney cell culture
?s s3 and homologous(w)recombination

          1959  S3
        193740  HOMOLOGOUS
        160825  RECOMBINATION
         14238  HOMOLOGOUS(W)RECOMBINATION
     S6      6  S3 AND HOMOLOGOUS(W)RECOMBINATION
?rd s6

...completed examining records
     S7      6  RD S6 (unique items)
?t s7/6/1-6

 7/6/1     (Item 1 from file: 50)
  11936   CAB Accession Number: 920194878
```

homologous recombination in a chloramphenicol acetyltransferase assay system.

7/6/2 (Item 1 from file: 434)
12802469 Genuine Article#: MR989 Number of References: 42
Title: MICE LACKING N-ACETYLGLUCOSAMINYLTRANSFERASE-I ACTIVITY DIE AT MIDGESTATION, REVEALING AN ESSENTIAL ROLE FOR COMPLEX OR HYBRID N-LINKED CARBOHYDRATES (Abstract Available)

7/6/3 (Item 2 from file: 434)
12319330 Genuine Article#: LB606 Number of References: 19
Title: STABLE EXPRESSION OF CLONED RAT GABA(A) RECEPTOR SUBUNITS IN A HUMAN KIDNEY-CELL LINE (Abstract Available)

7/6/4 (Item 3 from file: 434)
12247590 Genuine Article#: KX335 Number of References: 47
Title: CHARACTERIZATION OF EQUINE INFECTIOUS-ANEMIA VIRUS DUTPASE - GROWTH-PROPERTIES OF A DUTPASE-DEFICIENT MUTANT (Abstract Available)

7/6/5 (Item 4 from file: 434)
11446324 Genuine Article#: HJ516 Number of References: 33
Title: STRATEGIES TOWARDS A TRANSGENIC MODEL OF ESSENTIAL-HYPERTENSION (Abstract Available)

7/6/6 (Item 5 from file: 434)
07252367 Genuine Article#: A9839 Number of References: 22
Title: TRANSFORMATION OF PRIMARY HUMAN-EMBRYONIC KIDNEY-CELLS TO ANCHORAGE INDEPENDENCE BY A COMBINATION OF BK VIRUS-DNA AND THE HARVEY-RAS ONCOGENE
?t s7/7/1-6

>>>Unrecognizable Command
?t s7/7/1-6

7/7/1 (Item 1 from file: 50)
DIALOG(R)File 50:CAB ABSTRACTS

02511936 CAB Accession Number: 920194878
Mouse embryonic stem cells exhibit high levels of extrachromosomal homologous recombination in a chloramphenicol acetyltransferase assay system.
Jasin, M.; Liang, F.
Department of Cell Biology and Genetics, Sloan-Kettering Institute and Cornell University Graduate School of Medical Sciences, 1275 York Avenue, New York, NY 10021, USA.
Nucleic Acids Research vol. 19 (25): p.7171-7175
Publication Year: 1991
ISSN: 0305-1048
Language: English

Document Type: Journal article

Embryonic stem (ES) cells were compared with COS1 and CV1 monkey kidney cells for their ability to perform extrachromosomal homologous recombination. RSVCAT plasmid substrates consisting of overlapping chloramphenicol acetyltransferase (CAT) gene fragments were transiently transfected into cells, and extracts were assayed for CAT activity. Approximately 10% activity, relative to transfection with a complete CAT gene, was recovered for the recombination substrates in each of the cell lines tested. ES cells, therefore, are capable of the same high levels of extrachromosomal recombination as other cell lines. 37 ref.

7/7/2 (Item 1 from file: 434)
DIALOG(R)File 434:SciSearch(R)

12802469 Genuine Article#: MR989 Number of References: 42
Title: MICE LACKING N-ACETYLGLUCOSAMINYLTRANSFERASE-I ACTIVITY DIE AT MIDGESTATION, REVEALING AN ESSENTIAL ROLE FOR COMPLEX OR HYBRID N-LINKED CARBOHYDRATES
Author(s): IOFFE E; STANLEY P
Corporate Source: ALBERT EINSTEIN COLL MED,DEPT CELL BIOL/NEW YORK//NY/10461; ALBERT EINSTEIN COLL MED,DEPT CELL BIOL/NEW YORK//NY/10461
Journal: PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, 1994, V91, N2 (JAN 18), P728-732
ISSN: 0027-8424
Language: ENGLISH Document Type: ARTICLE
Abstract: Eukaryotic cells require N-linked carbohydrates for survival. However, the biosynthetic intermediate Man5GlcNAc2Asn, in place of mature N-linked structures, allows glycoprotein synthesis and somatic cell growth to proceed normally. To determine whether the same would be true in a complex biological situation, the gene Mgat-1 was disrupted by homologous recombination in embryonic stem cells and transmitted to the germ line. The Mgat-1 gene encodes N-acetylglucosaminyltransferase I [GlcNAc-TI; alpha-1,3-mannosyl-glycoprotein beta-1,2-N-acetylglucosaminyltransferase; UDP-N-acetyl-D-glucosamine:glycoprotein (N-acetyl-D-glucosamine to aloha-D-mannosyl-1,3-(R(1))-beta-D-mannosyl-R(2)) beta-1,2-N-acetyl-D-glucosaminyltransferase, EC 2.4.1.101], the transferase that initiates synthesis of hybrid and complex N-linked carbohydrates from Man5GlcNAc2Asn. Mice lacking GlcNAc-TI activity did not survive to term. Biochemical and morphological analyses of embryos from 8.5 to 13.5 days of gestation showed that Mgat-1(-/-) embryos are developmentally retarded, most noticeably in neural tissue, and die between 9.5 and 10.5 days of development.

7/7/3 (Item 2 from file: 434)
DIALOG(R)File 434:SciSearch(R)

12319330 Genuine Article#: [illegible]606 Number of References: 19
Title: STABLE EXPRESSION OF [illegible]NED RAT GABA(A) RECEPTOR SUBUN[illegible] IN A HUMAN KIDNEY-CELL LINE
Author(s): HAMILTON BJ; LENNON DJ; IM HK; IM WB; SEEBURG PH; CARTER DB

Corporate Source: UPJOHN CO,CNS RES 7251-209-721,301 HENRIETTA ST/KALAMAZOO//MI/49001; UPJOHN CO,CNS RES 7251-209-721,301 HENRIETTA ST/KALAMAZOO//MI/49001; [redacted] HEIDELBERG,CTR MOLEC BIOL/W-[redacted]

HEIDELBERG//GERMANY/
Journal: NEUROSCIENCE LETTERS, 1993, V153, N2 (APR 30), P206-209
ISSN: 0304-3940
Language: ENGLISH Document Type: ARTICLE
Abstract: A predominant form of the GABA(A)/benzodiazepine receptor-Cl- channel complex is believed to consist of three different 48-55 kDa subunits (alpha, beta, gamma) with unknown stoichiometry. Plasmids containing the rat GABA(A) receptor cDNAs coding for alpha1,beta2, and gamma2 were co-transfected, along with a plasmid encoding G418 resistance, into human embryonic kidney cells previously transformed with Adenovirus 5 (HEK-293) [J. Gen. Virol., 36 (1977) 59-72]. Four percent of the G418 resistant colonies were found to express mRNA for all three of the GABA(A) subunits constitutively. A single cell clone derived from one of the alpha1beta2gamma2 expressors has demonstrated stable electrophysiological characteristics over 25 passages. The GABA-activated Cl- current in this cell line is blocked by picrotoxin and bicuculline, and is modulated by a variety of agonist and inverse agonist ligands including diazepam, Ro 154513, zolpidem, and beta-CCE. The cell line has been used successfully over a 12-month period as a screen for novel drugs modulating GABA-mediated polarization of neuronal cells.

7/7/4 (Item 3 from file: 434)
DIALOG(R)File 434:SciSearch(R)

12247590 Genuine Article#: KX335 Number of References: 47
Title: CHARACTERIZATION OF EQUINE INFECTIOUS-ANEMIA VIRUS DUTPASE - GROWTH-PROPERTIES OF A DUTPASE-DEFICIENT MUTANT
Author(s): THREADGILL DS; STEAGALL WK; FLAHERTY MT; FULLER FJ; PERRY ST; RUSHLOW KE; LEGRICE SFJ; PAYNE SL
Corporate Source: CASE WESTERN RESERVE UNIV,SCH MED,DEPT MOLEC BIOL & MICROBIOL,10900 EUCLID AVE/CLEVELAND//OH/44106; CASE WESTERN RESERVE UNIV,SCH MED,DEPT MOLEC BIOL & MICROBIOL,10900 EUCLID AVE/CLEVELAND//OH/44106; CASE WESTERN RESERVE UNIV,SCH MED,DIV INFECT DIS/CLEVELAND//OH/44106; N CAROLINA STATE UNIV,COLL VET MED,DEPT MICROBIOL PATHOL & PARASITOL/RALEIGH//NC/27606; UNIV PITTSBURGH,SCH MED,DEPT MOLEC GENET & BIOCHEM/PITTSBURGH//PA/15261
Journal: JOURNAL OF VIROLOGY, 1993, V67, N5 (MAY), P2592-2600
ISSN: 0022-538X
Language: ENGLISH Document Type: ARTICLE
Abstract: The putative dUTPase domain was deleted from the polymerase (pol) gene of equine infectious anemia virus (EIAV) to produce a recombinant DELTADUpol Escherichia coli expression cassette and a DELTADU proviral clone. Expression of the recombinant DELTADUpol polyprotein yielded a properly processed and enzymatically active reverse transcriptase, as determined by immunoblot analysis and DNA polymerase activity gels. Transfection of DELTADU provirus into feline (FEA) cells resulted in production of virus that replicated to wild-type levels in both FEA cells and fetal equine kidney cells. In contrast, the DELTADU virus replicated poorly (less than 1% of wild-type levels) in primary equine

Preparations of DELTADU virus contained negligible dUTPase activity, which confirms that virion-associated dUTPase is encoded in the pol gene region between the RNase H domain and integrase, as has been

demonstrated previously for feline immunodeficiency virus (J. H. Elder, D. L. Lerner, C. S. Hasselkus-Light, D. J. Fontenot, E. Hunter, P. A. Luciw, R. C. Montelaro, and T. R. Phillips, J. Virol. 66:1791-1794, 1992). Our results suggest that virus-encoded dUTPase is dispensable for virus replication in dividing cells in vitro but may be required for efficient replication of EIAV in nondividing equine macrophages, the natural host cells for this virus.

7/7/5 (Item 4 from file: 434)
DIALOG(R)File 434:SciSearch(R)

11446324 Genuine Article#: HJ516 Number of References: 33
Title: STRATEGIES TOWARDS A TRANSGENIC MODEL OF ESSENTIAL-HYPERTENSION
Author(s): BARRETT GL; MULLINS JJ
Corporate Source: UNIV EDINBURGH,AFRC,CTR GENOME RES,KINGS BLDG,WMAINS RD/EDINBURGH EH9 3JQ//SCOTLAND/; UNIV EDINBURGH,AFRC,CTR GENOME RES,KINGS BLDG,WMAINS RD/EDINBURGH EH9 3JQ//SCOTLAND/
Journal: BIOCHEMICAL PHARMACOLOGY, 1992, V43, N5 (MAR 3), P925-930
Language: ENGLISH Document Type: ARTICLE
Abstract: The generation of genetically modified animals by transgenic technology has proven to be a surprisingly versatile resource for researchers, providing an increasing number of new tools for biological investigation. As well as permitting the analysis of gene function and regulation in vivo, modifications of the techniques are being used to suppress or abolish the expression of specific genes, and further refinements have permitted the ablation of specific cell-types and the development of differentiated cell lines from tissue-specific tumours. In hypertension research, where many important questions have been frustratingly difficult to address by previously available methods, the advances afforded by transgenic studies have already been significant and are likely to be even more profound in the future. With the further development of these techniques, it may be possible to produce new and more representative models of essential hypertension.

7/7/6 (Item 5 from file: 434)
DIALOG(R)File 434:SciSearch(R)

07252367 Genuine Article#: A9839 Number of References: 22
Title: TRANSFORMATION OF PRIMARY HUMAN-EMBRYONIC KIDNEY-CELLS TO ANCHORAGE INDEPENDENCE BY A COMBINATION OF BK VIRUS-DNA AND THE HARVEY-RAS ONCOGENE
Author(s): PATER A; PATER MM
Corporate Source: MEM UNIV NEWFOUNDLAND,HLTH SCI CTR,FAC MED/ST JOHNS A1B 3V6/NEWFOUNDLAND/CANADA/
Journal: JOURNAL OF VIROLOGY, 1986, V58, N2, P680-683
Language: ENGLISH Document Type: NOTE
?logoff

28mar95 11:10:18 User214244 Session D62.2

```
          $2.16    0.072 Hrs File5
             $0.00  4 Type(s) in Format  6
             $1.25  1 Type(s) in Format  7

          $1.25  5 Types
          $0.97  View Fee
     $4.38  Estimated cost File5
          $0.30    0.010 Hrs File50
             $0.00  1 Type(s) in Format  6
             $1.20  1 Type(s) in Format  7
          $1.20  2 Types
          $0.13  View Fee
     $1.63  Est
imated cost File50
          $1.02    0.017 Hrs File76
          $0.24  View Fee
     $1.26  Estimated cost File76
          $2.52    0.042 Hrs File14ATZ
4
          $0.56  View Fee
     $3.08  Estimated cost File144
          $0.95    0.063 Hrs File155
             $0.00  3 Type(s) in Format  6
          $0.00  3 Types
          $0.84  View Fee
     $1.79  Estimated cost File155
          $0.12    0.002 Hrs File185
          $0.03  View Fee
     $0.15  Estimated cost File185
          $0.09    0.001 Hrs File295
          $0.02  View Fee
     $0.11  Estimated cost File295
          $3.78    0.042 Hrs File399
             $0.25  1 Type(s) in Format  6
             $1.50  1 Type(s) in Format  7
          $1.75  2 Types
          $0.56  View Fee
     $6.09  Estimated cost File399
          $5.88    0.049 Hrs File434
             $0.00  13 Type(s) in Format  6
             $6.75  5 Type(s) in Format  7
          $6.75  18 Types
          $0.65  View Fee
    $13.28  Estimated cost File434
          OneSearch, 9 files,  0.300 Hrs F
OK
```

787390

```
PLEASE ENTER HOST PORT ID:x
LOGINID:d184sez
PASSWORD:#########
TERMINAL (ENTER 1, 2, 3, 4, OR ?):2
08 MAR 93 11:45:10          U.S. Patent & Trademark Office          P0001
=> set page scroll
SET COMMAND COMPLETED

=> s homologous(w)recombin?tio
          4581 HOMOLOGOUS
         16935 RECOMBIN?
L1         159 HOMOLOGOUS(W)RECOMBIN?

=> s l1 and amplif?
        171830 AMPLIF?
L2          70 L1 AND AMPLIF?

=> s l2 and select?
        875550 SELECT?
L3          70 L2 AND SELECT?

=> s l3 and secondary
        167797 SECONDARY
L4          27 L3 AND SECONDARY

=> s l4 and primary
        309914 PRIMARY
L5          24 L4 AND PRIMARY

=> s l5 and (transfectant?)
            86 TRANSFECTANT?
L6           0 L5 AND (TRANSFECTANT?)

=> s l5 and recipient?
          7014 RECIPIENT?
L7           4 L5 AND RECIPIENT?

=> d l7 1-4 cit,ab

1.  5,189,151, Feb. 23, 1993, Highly specific DNA probe for
enteroaggregative escherichia coli; Bernadette Baudry, et al., 536/24.32;
435/6 [IMAGE AVAILABLE]

US PAT NO:     5,189,151 [IMAGE AVAILABLE]            L7: 1 of 4

ABSTRACT:
An oligonucleotide comprises a DNA segment capable of hybridizing to DNA
from enteroaggregative E. coli bacteria with high sensitivity and
specificity. A recombinant vector comprises a vector carrying the
oligonucleotide of the invention, the vector being capable of replication
in a host. A host is transformed with the recombinant vector of the
invention. A method of detecting the presence of enteroaggregative E.
```

coli DNA in a biological sample with high sensitivity and specificity comprises adding to the sample the labeled oligonucleotide of the invention under conditions effective to promote hybridization thereof to

the sample's DNA, and detecting the presence of hybridized labeled DNA. A method of detecting the presence of enteroaggregative E. coli RNA in a sample with high sensitivity and specificity comprises adding to the sample the oligonucleotide of the invention under conditions effective to promote hybridization thereof to the sample's RNA and detecting the presence of hybridized labeled RNA-DNA. An article of manufacture comprises in separate containers the oligonucleotide of the invention, a denaturing solution, a rinsing solution, filter paper, and the like and optionally a further oligonucleotide comprising a further DNA segment **selected** from the group consisting of enteropathogenic, enterotoxicogenic, enteroinvasive and enterohemorrhagic E. coli DNA and E. coli DNA exhibiting diffuse adherence. An article of manufacture comprises in separate containers the recombinant vector of the invention, a denaturing solution, a rinsing solution, filter paper, and the like and optionally a further oligonucleotide comprising a further DNA segment **selected** from the group consisting of enteropathogenic, enterotoxicogenic, enteroinvasive and enterohemorrhagic E. coli DNA and E. coli DNA exhibiting diffuse adherence.

2. 5,098,997, Mar. 24, 1992, Vaccines for Haemophilus influenzae; Algis Anilionis, et al., 530/350; 435/69.3, 69.7, 851; 530/405, 806, 825 [IMAGE AVAILABLE]

US PAT NO: 5,098,997 [IMAGE AVAILABLE] L7: 2 of 4

ABSTRACT:
Peptides and proteins related to an epitope comprising an outer membrane protein of Haemophilus influenzae are described. The peptides and proteins can be prepared by methods including novel and improved methods of purification from H. influenzae cultures, and by recombinant DNA and chemical synthetic techniques. Additionally, recombinant vectors containing nucleotide sequences encoding PBOMP-1 and PBOMP-2 related peptides, proteins and fusion proteins are also described. Recombinant vectors include plasmid DNA and viral DNA such as human viruses, animal viruses, insect viruses and bacteriophages that direct the expression of the PBOMP-1 and PBOMP-2 related peptides, proteins, and fusion proteins in appropriate host cells. The peptides, proteins, fusion proteins and viruses both "live" and "inactivated" are used as immunogens in vaccine formulations to protect against H. influenzae infections. The peptides, proteins and fusion proteins are also used as reagents in immunoassays as well as to prepare immunoglobulins for passive immunization. Use of the nucleotide sequences encoding the PBOMP related peptides, proteins and fusion proteins in hybridization assays is also described.

3. 4,816,405, Mar. 28, 1989, Vectors for transformation by ascomycetes; William E. Timberlake, et al., 435/252.33, 172.3, 254, 320.1, 849, 913; 935/26, 29, 34, 41, 68, 73, 80

US PAT NO: 4,816,405 L7: 3 of 4

ABSTRACT:
Vectors and procedures are provided that enable genetic manipulation of the filamentous ascomycetes such as Aspergillus nidulans and Aspergillus

=> log y
U.S. Patent & Trademark Office LOGOFF AT 10:12:31 ON 18 AUG 92
+++
OK
ATZ
ATZ
OK
ATH
ATH
OK

niger. The systems of the invention permit transformation of various Aspergillus strains as well as the production and secretion of desired foreign proteins. Also provided are cosmid vectors which enable the

isolation, cloning, sequencing and modifications of genes from the filamentous ascomycetes.

4. 4,405,712, Sep. 20, 1983, LTR-Vectors; George F. Vande Woude, et al., 435/5, 69.1, 69.3, 172.3, 240.2, 320.1; 935/9, 19, 23, 32, 57

US PAT NO: 4,405,712 L7: 4 of 4

ABSTRACT:
The production of vectors composed of portions of retrovirus, particularly of Moloney sarcoma virus DNA including the "LTR" sequence which can activate genes and additional viral sequences which can "rescue" these genes into a replicating virus particle.

=> log y
U.S. Patent & Trademark Office LOGOFF AT 11:52:52 ON 08 MAR 93

+++
OK
ATZ
OK
ATH
OK

787390

```
          4222 HOMOLOGOUS
          6899 RECOMBINATION?
L1         117 HOMOLOGOUS(W)RECOMBINATION?
=> s l1 and gene(2w)amplif?

          3959 GENE
        166390 AMPLIF?
           125 GENE(2W)AMPLIF?
L2          11 L1 AND GENE(2W)AMPLIF?
=> s l2 and second?(3w)transfectant?

       1120198 SECOND?
            69 TRANSFECTANT?

             3 SECOND?(3W)TRANSFECTANT?
L3           0 L2 AND SECOND?(3W)TRANSFECTANT?
=> s second?(3w)transfectant?

       1120198 SECOND?
            69 TRANSFECTANT?

L4           3 SECOND?(3W)TRANSFECTANT?
=> d l4 1-3 cit,ab
```

1. 4,935,341, Jun. 19, 1990, Detection of point mutations in neu genes; Cornelia I. Bargmann, et al., 435/6, 803; 436/501; 536/27; 935/9, 78 [IMAGE AVAILABLE]

US PAT NO: 4,935,341 [IMAGE AVAILABLE] L4: 1 of 3

ABSTRACT:
Oligonucleotide probes reactive with regions of neu oncogenes of mammalian origin in which the mutation causing activation of such oncogenes is contained are described, as are methods for their use in detecting the presence of neu oncogenes in tumor cells. Antibodies specific for gene products encoded by neu oncogenes are also described.

2. 4,871,838, Oct. 3, 1989, Probes and methods for detecting activated ras oncogenes; Johannes L. Bos, et al., 536/27; 435/6, 803; 436/813; 935/9, 78

US PAT NO: 4,871,838 L4: 2 of 3

ABSTRACT:
Molecules complementary to nucleotide sequences encoding mutant ras protiens which contain a single-base mutation in the codon encoding amino acids at position 13, 12 or 61 have been produced. These molecules are useful in methods of detecting specific single-base mutations in altered ras genes and the specific cancers associated with such mutations.

3. 4,652,522, Mar. 24, 1987, Continuous lymphocyte cell lines, their production and use; Roger H. Kennett, et al., 435/69.6, 172.1, 240.27, 948; 935/52

US PAT NO: 4,652,522 L4: 3 of 3

ABSTRACT:
A method for producing continuous B lymphocyte cell lines and monoclonal antibodies by such lines is provided. DNA isolated from neoplastic cells is introduced into stimulated lymphocytes. Individual cells that have been transformed by the added DNA and that produce antibodies are clonally expanded. Cultures of these continuous cells are employed to produce monoclonal antibodies.
=> d l4 1-3 kwic

US PAT NO: 4,935,341 [IMAGE AVAILABLE] L4: 1 of 3

DETDESC:

DETD(22)

This . . . et al., Nature, 277: 108-114 (1979). A transforming neu cDNA clone derived from the B104-1-1 cell line, which is a **secondary** **transfectant** of an activated rat neu gene, was inserted into pSV2 to create a plasmid designated as pSV2neuT (FIG. 1). pSV2neuT. . .

US PAT NO: 4,871,838 L4: 2 of 3

DETDESC:

DETD(35)

To . . . in codon 61 of the N-ras gene. These plasmids, pAT8.8 and pSVN-ras contain parts of the activated genes from a **secondary** NIH/3T3 cell **transfectant** of the fibrosarcoma cell line HT1080 (25; CAA.sub.61 -- AAA;13) or from a tertiary transfectant of the promyelytic cell line. . .

US PAT NO: 4,652,522 L4: 3 of 3

SUMMARY:

BSUM(26)

It . . . DNA portions containing the operative oncogene(s) can be identified by transfecting additional lymphocytes with DNA from the primary transfectants. These **secondary** **transfectants** will lose large amounts of the nonessential DNA found in primary transfectants, thus identifying the DNA containing essential oncogenic regions.
=> e skoultchi, arthur i./in
E1 1 SKOUG, PAUL G/IN
E2 1 SKOUGH, EVERT B/IN
E3 0 --> SKOULTCHI, ARTHUR I/IN
E4 2 SKOULTCHI, MARTIN/IN
E5 14 SKOULTCHI, MARTIN M/IN
E6 1 SKOUMAL, DONALD E/IN
E7 2 SKOUPI, DIETER/IN
E8 1 SKOURAS, NICOS P/IN
E9 3 SKOURES, ALEXANDER E/IN
E10 1 SKOUSEN, MARTIN KRABBE/IN
E11 1 SKOUSEN, ORVAL N/IN
E12 1 SKOUSEN, RUSSELL K/IN